



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/698,161

10/31/2003

Yu-Chih Wang

252011-1770

9843

24504

7590

09/08/2004

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP  
100 GALLERIA PARKWAY, NW  
STE 1750  
ATLANTA, GA 30339-5948

EXAMINER

JARRETT, RYAN A

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/698,161

Applicant(s)

WANG ET AL.

Examiner

Ryan A. Jarrett

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7-13, 15-21, and 23-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Goerigk U.S. Patent No. 6,303,398. Goerigk discloses executing a data verification procedure after a first process operation of a plurality of wafers and obtaining a verification result (col. 4 line 4 – line 5 line 18); producing a carrier transfer sub-route of the wafers according to the verification result (e.g., col. 5 lines 19-38); executing the carrier transfer sub-route of the wafers (e.g., col. 5 lines 19-38); and executing a second process operation for the wafers (e.g., col. 5 lines 38-45);

wherein the data verification procedure is executed according to a MES database; wherein the data verification procedure verifies the data between the wafers and the MES database; wherein executing the carrier transfer sub-route further comprises updating the MES database; wherein the carrier transfer sub-route is enabled by transferring the wafers from a first carrier to a second carrier; wherein the first process operation and the second process operation are stored in a database; wherein the carrier transfer sub-route is stored in a database (e.g., col. 5 line 45 – col. 6

line 18, col. 7 lines 13-24, col. 7 lines 43-55, col. 8 lines 1-24, col. 8 line 57 – col. 9 line 20).

A system for automatic carrier transfer, comprising: a first execution module, executing a data verification procedure after a first process operation of a plurality of wafers and obtaining a verification result (e.g. Fig. 1 #1, Fig. 1 #3, Fig. 1 #5); a sub-route production module, coupled to the first execution module, producing a carrier transfer sub-route according to the verification result (e.g., Fig. 1 #1); a sub-route execution module, coupled to the sub-route production module, executing the carrier transfer sub-route of the wafers (e.g., Fig. 1 #5); and a second execution module, coupled to the sub-route execution module, executing a second process operation for the wafers (e.g., Fig. 1 #6-9).

3. Regarding claims 25-32, the patentability of a product does not depend on its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See MPEP 2113. Although Goerigk teaches the method recited in these claims, the IC product could also be produced by numerous other methods.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2125

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 14, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goerigk as applied to claims 1, 9, and 17 above, and further in view of Babbs et al. 6,520,727. Goerigk discloses that the carrier transfer sub-route is enabled by splitting the wafers in the first cassette, or carrier (e.g., col. 6 lines 6-18). Goerigk does not explicitly disclose that the wafers are transferred to at least two carriers. However, Babbs et al. discloses a modular wafer sorter that splits wafers from one cassette into two or three other cassettes (col. 2 lines 29-40). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Goerigk with Babbs in order to route the split wafers of Goerigk to two different subsequent processes.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (703) 308-4739. The examiner can normally be reached on 10:00-6:30 M-F.

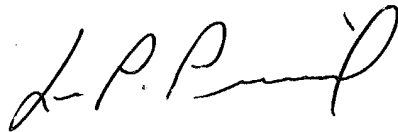
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2125

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan A. Jarrett  
Examiner  
Art Unit 2125

9/7/04

A handwritten signature in black ink, appearing to read "L. P. Picard". The signature is fluid and cursive, with a large, stylized "P" and "C".

LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100